Aubrey L. Dugger *Curriculum Vitae*

PhD Candidate, Bren School of Environmental Science and Management, University of California at Santa Barbara
Email: adugger@bren.ucsb.edu, Web: www.newtide.org

SUMMARY

Aubrey's academic and professional work focus on the synthesis of hydrological modeling and geospatial analysis tools, with applications ranging from flood prediction and stormwater management to habitat restoration. She spent 15 years as a scientific and technical consultant to non-profit organizations and public agencies working to improve water and other natural resource management throughout California, and served as Associate Director of a non-profit consulting group for 7 of those years. Her current doctoral research explores the interacting effects of climate and land use changes on semi-arid mountain watersheds with the ultimate goal of improving impact assessment on downstream water supply systems.

EDUCATION

PhD Candidate in Environmental Science **2013 (expected)**
University of California at Santa Barbara, Bren School of Environmental Science and Management
Areas of Interest: Hydrology, Ecohydrologic Modeling, Water Resource Management
Thesis: Interacting effects of land management strategies and climate change on water resources in the semiarid Santa Fe Municipal Watershed
Advisor: Dr. Christina Tague; Committee: Dr. Frank Davis, Dr. Christopher Costello

Master of Science in Engineering **1997**
University of Texas at Austin, Department of Civil and Environmental Engineering
Areas of Interest: Hydrology, Water Resource Management, Geographic Information Systems (GIS)
Thesis: Linking GIS with the HEC Hydrologic Modeling System: An Investigation of the Midwest Flood of 1993
Advisors: Dr. David R. Maidment and Dr. Edward R. Holley

Bachelor of Science in Engineering, cum laude **1996**
Duke University, Department of Civil Engineering

PROFESSIONAL EXPERIENCE

Independent Consultant **2008 – current**
Santa Barbara, California (http://www.newtide.org)

Associate Director and Senior Project Specialist **2000 – 2008**
GreenInfo Network - Los Angeles, California (www.greeninfo.org)

GIS Specialist **1999 – 2000**
GreenInfo Network - San Francisco, California (www.greeninfo.org)

Staff Scientist **1998 - 1999**
Natural Heritage Institute – San Francisco, California (www.n-h-i.org)

KEY PROJECTS (selected)

Los Angeles Integrated Regional Water Management Plan Update, RMC Water and Environment, Geosyntec Consultants, *2011-2012*
Water Security and Climate Change, Los Alamos National Laboratory, *2008-2012*
A Clear Blue Future, Natural Resources Defense Council, *2008-2009*
Green Solutions Water Quality Assessment for Los Angeles County, Community Conservancy International, Santa Monica Bay Restoration Commission, Santa Monica Mountains Conservancy, *2007-2010*

Ballona Wetlands Restoration Project, California Coastal Conservancy, *2007-2009*
Nearshore Ecosystem Database, Reef Check California, *2007-2008*
Los Angeles County-Wide Methodology For Prioritizing Structural BMP Implementation: Guidance for Strategic Storm Water Quality Project Planning, Heal the Bay, Los Angeles County, *2005-2006*
Arroyo Seco Watershed Management and Restoration Plan, Northeast Trees, *2004-2005*
California Legacy Project, State of California Resources Agency, *2001-2002*

PUBLICATIONS & PRESENTATIONS (selected)

Dugger, A.L., Tague, C., Allen, C.D., Ringler, T. How does forest thinning affect short- and long-term water partitioning in the semi-arid Santa Fe Municipal Watershed, and how do these changes compare to unmediated forest responses to climate change? Presentation at the American Geophysical Union Fall Meeting, San Francisco, CA, December 2011.

Dugger, A. L., C. Tague, E. Q. Margolis, C. D. Allen, T. Ringler (2011). Forest-hydrology interactions under a warmer climate: Effects of vegetation productivity dynamics and mortality on streamflow predictions in a semi-arid New Mexico mountain system. Presentation at the Ecological Society of America Annual Meeting, Austin, TX, August 2011.

Dugger, A. L., C. Tague, C. D. Allen, T. Ringler (2010). How Important is Vegetation Drought Stress Response when Predicting Streamflow within the Semi-Arid Santa Fe Municipal Watershed? Presentation at the American Geophysical Union Fall Meeting, San Francisco, CA, December 2010.

Tague, C., Dugger, A.L. Ecohydrology and Climate Change in the Mountains of the Western U.S. – A Review of Research and Opportunities. Geography Compass, November 2010.

Dugger, A.L., Tague, C., Allen, C.D., Ringler, T. Interacting Effects of Land Management Strategies and Climate Change on the Ecohydrologic Systems of the Semi-Arid Santa Fe Municipal Watershed. Presentations at the American Geophysical Union Fall Meeting, December 2009 and MtnClim Biennial Conference, June 2010.

Susilo, K., Dugger, A.L. The Strategic BMP Prioritization Analysis Tool: Implementation of the Los Angeles County-Wide Structural BMP Prioritization Methodology. Presentation at the Headwaters to Ocean (H2O) Annual Conference, October 2007.

Dugger, A. L., Finding Green Solutions to Urban Water Pollution. Presentation at the Society for Conservation GIS (SCGIS) Annual Conference, June 2007.

AWARDS (selected)

Toyota Motor Sales Fellowship, 2011
Los Alamos National Laboratory Institute of Geophysics and Planetary Physics (IGPP) Water Security and Climate Change Grant, 2008-2011
Deckers Outdoor Corporation Fellowship, 2008
John Muir Conservation Award for GreenInfo Network (Team Award), 2007
ASCE MLAB Outstanding Public/Private Sector Civil Engineering Project for the Los Angeles County Structural BMP Prioritization Methodology (Team Award), 2006
ESRI Special Achievement Award for GreenInfo Network (Team Award), 2006.

PROFESSIONAL AFFILIATIONS & COMMITTEES

Ecological Society of America, member, 2011-current
American Geophysical Union, member, 2009-current
Society for Conservation GIS, member, 1999-current
Southern California Wetlands Recovery Project, Public Advisory Committee, 2005-2008
Society of Women Engineers, Duke University Chapter President, 1995-1996